DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. underneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled

TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES

and for which a patent application:

☐ is attached hereto and includes amendment(s) filed on (if applicable)

was filed in the United States on June 24, 1999 as Application No. 09/338,942

with amendment(s) filed on (if applicable)

.

was filed as PCT international Application No. on and was amended under PCT Article 19 on (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

EARLIEST FOREIGN APPLICA	TION(S), IF ANY, FILED PR	OR TO THE FILING DATE OF	THE APPLICATION
APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIORITY CLAIMED
. All Bload of the second			YES D NO D
			YES D NO D

Interchy claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below.

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APPLICATION NUMBER	FILING DATE
ATTLICATION NUMBER	

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

			STATUS	
APPLICATION SERIAL NO.	FILING DATE	PATENTED	PENDING	ABANDONED

POWER OF ATTORNEY: As a named inventor, I hereby appoint S. Leslie Misrock (Reg. No. 18872), Harry C. Jones, III (Reg. No. 20280), Berj A. Terzian (Reg. No. 2060), Gerald J. Flintoft (Reg. No. 20823), David Weild, III (Reg. No. 21094), Jonathan A. Marshall (Reg. No. 24614), Barry D. Rein (Reg. No. 22411), Stanton T. Lawrence, III (Reg. No. 25736), Charles E. McKenney (Reg. No. 22795), Philip T. Shannon (Reg. No. 24278), Francis E. Morris (Reg. No. 24615), Charles E. Miller (Reg. No. 24576), Gidon D. Stern (Reg. No. 27469), John J. Lauter, Jr. (Reg. No. 27814), Brian M. Poissant (Reg. No. 28462), Brian D. Coggio (Reg. No. 27624), Rory J. Radding (Reg. No. 28749), Stephen J. Harbulak (Reg. No. 29166), Donald J. Goodell (Reg. No. 19766), James N. Palik (Reg. No. 25510), Thomas E. Friebel (Reg. No. 29258), Laura A. Coruzzi (Reg. No. 30742), Jennifer Gordon (Reg. No. 30753), Jon R. Stark (Reg. No. 30111), Allan A. Fanucci (Reg. No. 30256), Geraldine F. Baldwin (Reg. No. 31232), Victor N. Balancia (Reg. No. 31231), Samuel B. Abrams (Reg. No. 30605), Steven I. Wallach (Reg. No. 3402), Marcia H. Sundeen (Reg. No. 30893), Paul J. Zegger (Reg. No. 33821), Edmond R. Bannon (Reg. No. 32110), Bruce J. Barker (Reg. No. 33291), Adriane M. Antler (Reg. No. 32605), Thomas G. Rowan (Reg. No. 34419), James G. Markey (Reg. No. 31636), Thomas D. Kohler (Reg. No. 32797), Scott D. Stimpson (Reg. No. 33607), William S. Galliani (Reg. No. 34419), James G. Markey (Reg. No. 31636), Thomas D. Kohler (Reg. No. 31956), all of Pennie & Edmonds LLP, whose addresses are 1155 Avenue of the Americas, New York, New York 10036, 1667 K Street N.W., Washington, DC 20006 and 3300 Hillview Avenue, Palo Alto, CA 94304, and each of them, my attorneys, to prosecute this application, and to transact all business in the Patent and Trademark Office Hillview Avenue, Palo Alto, CA 94304, and each of them, my attorneys, to prosecute this application, and to transact all business in the Patent and Trademark Office connected therewith.

SENI	O CORRESPONDENC	E TO: PENNIE & EDMOND 1155 Avenue of the A New York, N.Y. 1003	mericas PE	RECT TELEPHONE CALLS TO: NNIE & EDMONDS _{ILP} DOCKETING 2) 790-9090
	FULL NAME OF INVENTOR	LAST NAME Nottis	FIRST NAME James	MIDDLE NAME S.
2 0 I	RESIDENCE & CITIZENSHIP	CITY Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA
	POST OFFICE ADDRESS	STREET 1010 Casseque Province	спү Mt. Pleasant	STATE OR COUNTRY ZIP CODE South Carolina 29464
	FULL NAME OF INVENTOR	LAST NAME Clawson	FIRST NAME Gary	MIDDLE NAME A.
2 0 2	RESIDENCE & CITIZENSHIP	спу Bethesda	STATE OR FOREIGN COUNTRY Maryland	COUNTRY OF CITIZENSHIP USA
	POST OFFICE ADDRESS	STREET 5709 Rockmere Drive	спу Bethesda	STATE OR COUNTRY ZIP CODE Maryland 20816
Apparent or Appar	FULL NAME OF INVENTOR	LAST NAME Schmidt	FIRST NAME Michael	MIDDLE NAME G.
12 10 13	RESIDENCE & CITIZENSHIP	CITY Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSIUP USA
	POST OFFICE ADDRESS	STREET 1257 Wynnwood Court	спү Mt. Pleasant	STATE OR COUNTRY ZIP CODE South Carolina 29464
	FULL NAME OF INVENTOR	LAST NAME Hoel	FIRST NAME Brian	MIDDLE NAME
2 0 4	RESIDENCE & CITIZENSHIP	спу Charleston	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA
Ī	POST OFFICE ADDRESS	STREET 36 S. Battery	City Charleston	STATE OR COUNTRY ZIP CODE South Carolina 29401
11217	FULL NAME OF INVENTOR	LAST NAME Pan	FIRST NAME Wei-Hua	MIDDLE NAME
2 0 5	RESIDENCE & CITIZENSHIP	cny Hummelstown	STATE OR FOREIGN COUNTRY Pennsylvania	COUNTRY OF CITIZENSHIP China
	POST OFFICE ADDRESS	STREET 907 Butler Court	спу Hummelstown	STATEOR COUNTRY ZIP CODE Pennsylvania 17036
	FULL NAME OF INVENTOR	LAST NAME Dolan	First NAME Joseph	MIDDLE NAME W.
2 0 6	RESIDENCE & CITIZENSHIP	CITY Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA
	POST OFFICE ADDRESS	Street 1821 Falling Circle	СПҮ Mt. Pleasant	STATE OR COUNTRY ZIP CODE South Carolina 29464
	FULL NAME OF INVENTOR	LAST NAME Schofield	FIRST NAME David	MIDDLE NAME
2 0 7	RESIDENCE & CITIZENSHIP	Ctry Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP United Kingdom
	POST OFFICE ADDRESS	STREET 803K Runaway Bay Drive	CITY Mt. Pleasant	STATE OR COUNTRY ZIP CODE South Carolina 29464
	FULL NAME OF INVENTOR	LAST NAME Westwater	FIRST NAME Caroline	MIDDLE NAME
2 0 8	RESIDENCE & CITIZENSHIP	Crry Charleston	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA
	POST OFFICE ADDRESS	STREET 803K Runaway Bay Drive	спу Mt. Pleasant	STATE OR COUNTRY ZIP CODE South Carolina 29464

(2) NY2 - 972888.1

PENNIE & EDMONDS LLP DOCKET NO. 9175-010

	FULL NAME OF INVENTOR	LAST NAME Huang	FIRST NAME Cancan	MIDDLE NAME	
2 0 9	RESIDENCE & CITIZENSHIP	спу Charleston	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP China	
	POST OFFICE ADDRESS	STREET 1515 Ashley River Road, F49	спу Charleston	STATE OR COUNTRY South Carolina	ZIP CODE 29407

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
SIGNATURE ON INVENTOR 201	SIGNATURE OF INVENTOR 202	
James S. Norris	Gary A. Clawson	Caroline Westwater
	DATE	DATE
1/14/2000		1/14/2000
SIGNATURE OF INVENTOR 204	SIGNATURE OF INVENTOR 205	SIGNATURE OF INVENTOR 206
Multiple G. Schmidt	Bu ND	
Michael G. Schmidt	Brian Hoel	Wei-Hua Pan
TATE	DATE	DATE
1/14/2000	1/14/00	
\$46NATURE OF INVENTOR 207	SIGNATURE OF INVENTOR 208	SIGNATURE OF INVENTOR 209
Juseph W. Dolan	D.A. Scuefuld David Schofield	Cancan Huang
1/14/2000	11.4/2000	1/14/200V

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(3)

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below at 201 et seq. underneath my name.

I believe I am the original, first and sole inventor if only one name is listed at 201 below, or an original, first and joint inventor if plural names are listed at 201 et seq. below, of the subject matter which is claimed and for which a patent is sought on the invention entitled

TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES

and for which a patent application:

☐ is attached hereto and includes amendment(s) filed on (if applicable)

■ was filed in the United States on June 24, 1999 as Application No. 09/338,942

with amendment(s) filed on (if applicable)

us filed as PCT international Application No. on and was amended under PCT Article 19 on (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

Thereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

	EARLIEST FOREIGN APPLICA	ATION(S), IF ANY, FILED PR	OR TO THE FILING DATE O	F THE APPLICATION
	APPLICATION NUMBER	COUNTRY	DATE OF FILING (day, month, year)	PRIORITY CLAIMED
<i></i>				YES 🗆 NO 🗗
				YES 🗆 NO 🗈

hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below.

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I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

			STATUS	
APPLICATION SERIAL NO.	PLICATION SERIAL NO. FILING DATE	PATENTED	PENDING	ABANDONED
	_			_]

POWER OF ATTORNEY: As a named inventor, I hereby appoint S. Leslie Misrock (Reg. No. 18872), Harry C. Jones, III (Reg. No. 20280), Berj A. Terzian (Reg. No. 20060), Gerald J. Flintoft (Reg. No. 20233), David Weild, III (Reg. No. 21094), Jonathan A. Marshall (Reg. No. 24614), Barry D. Rein (Reg. No. 22411), Stanton T. Lawrence, III (Reg. No. 25736), Charles E. McKenney (Reg. No. 22795), Philip T. Shannon (Reg. No. 24278), Francis E. Morris (Reg. No. 24615), Charles E. Miller (Reg. No. 24576), Gidon D. Stern (Reg. No. 27469), John J. Lauter, Jr. (Reg. No. 27814), Brian M. Poissant (Reg. No. 28749), Prian D. Coggio (Reg. No. 27624), Rory J. Radding (Reg. No. 28749), Stephen J. Harbulak (Reg. No. 29166), Donald J. Goodell (Reg. No. 19766), James N. Palik (Reg. No. 25510), Thomas E. Friebel (Reg. No. 29258), Laura A. Coruzzi (Reg. No. 30742), Jennifer Gordon (Reg. No. 30753), Jon R. Stark (Reg. No. 30111), Allan A. Fanucci (Reg. No. 30256), Geraldine F. Baldwin (Reg. No. 31232), Victor N. Balancia (Reg. No. 31231), Samuel B. Abrams (Reg. No. 30605), Steven I. Wallach (Reg. No. 35402), Marcia H. Sundeen (Reg. No. 30893), Paul J. Zegger (Reg. No. 33811), Edmond R. Bannon (Reg. No. 32110), Bruce J. Barker (Reg. No. 33291), Adriane M. Antler (Reg. No. 32605), Thomas G. Rowan (Reg. No. 34419), James G. Markey (Reg. No. 31636), Thomas D. Kohler (Reg. No. 32797), Scott D. Stimpson (Reg. No. 33607), William S. Galliani (Reg. No. 33885), Gary S. Williams (Reg. No. 31066), Mark A. Farley (Reg. No. 33170) and Ann L. Gisolfi (Reg. No. 31956), all of Pennie & Edmonds LLP, whose addresses are 1155 Avenue of the Americas, New York, New York 10036, 1667 K Street N.W., Washington, DC 20006 and 3300 Hilliview Avenue, Palo Alto, CA 94304, and each of them, my attorneys, to prosecute this application, and to transact all business in the Patent and Trademark Office connected therewith.

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NY2 - 972888.1

SEN	D CORRESPONDENCI	PENNIE & EDMONDS 1155 Avenue of the Ame New York, N.Y. 10036-2	ericas I	DIRECT TELEPHONE CALLS T PENNIE & EDMONDS _{LLP} DOCI (212) 790-9090	
	FULL NAME OF INVENTOR	LAST NAME Norris	FIRST NAME James	MIDDLE NAME S.	
0 1	RESIDENCE & CITIZENSHIP	CITY Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA	
	POST OFFICE ADDRESS	STREET 1010 Casseque Province	Mt. Pleasant	STATE OR COUNTRY South Carolina	ZIP CODE 29464
	FULL NAME OF INVENTOR	LAST NAME Clawson	FIRST NAME Gary	MIDDLE NAME A.	
0 2	RESIDENCE & CITIZENSHIP	CITY Bethesda	state or foreign country Maryland	COUNTRY OF CITIZENSHIP USA	
Ė	POST OFFICE ADDRESS	5709 Rockmere Drive	CITY Bethesda	STATE OR COUNTRY Maryland	ZIP CODE 20816
	FULL NAME OF INVENTOR	LAST NAME Schmidt	FIRST NAME Michael	MIDDLE NAME G.	
2 0 3	RESIDENCE & CITIZENSHIP	Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA	
	POST OFFICE ADDRESS	STREET 1257 Wynnwood Court	CITY Mt. Pleasant	STATEOR COUNTRY South Carolina	zip code 29464
	FULL NAME OF INVENTOR	LAST NAME Hoel	FIRST NAME Brian	MIDDLE NAME	
2 0 4	RESIDENCE & CITIZENSHIP	CITY Charleston	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA	
	POST OFFICE ADDRESS	STREET 36 S. Battery	Crry Charleston	STATE OR COUNTRY South Carolina	zip code 29401
	FULL NAME OF INVENTOR	LAST NAME Pan	FIRST NAME Wei-Hua	MIDDLE NAME	
0 5	RESIDENCE & CITIZENSHIP	спу Hummelstown	STATE OR FOREIGN COUNTRY Pennsylvania	COUNTRY OF CITIZENSHIP China	
	POST OFFICE ADDRESS	STREET 907 Butler Court	спу Hummelstown	STATEOR COUNTRY Pennsylvania	ZIP CODE 17036
	FULL NAME OF INVENTOR	LAST NAME Dolan	FIRST NAME Joseph	MIDDLE NAME W.	
0 6	RESIDENCE & CITIZENSHIP	спу Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA	
٠	POST OFFICE ADDRESS	STREET 1821 Falling Circle	CITY Mt. Pleasant	STATE OR COUNTRY South Carolina	ZIP CODE 29464
	FULL NAME OF INVENTOR	LAST NAME Schofield	FIRST NAME David	MIDDLE NAME	
2 0 7	RESIDENCE & CITIZENSHIP	CITY Mt. Pleasant	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP United Kingdom	
	POST OFFICE ADDRESS	STREET 803K Runaway Bay Drive	Mt. Pleasant	STATE OR COUNTRY South Carolina	ZIP CODE 29464
	FULL NAME OF INVENTOR	LAST NAME Westwater	FIRST NAME Caroline	MIDDLE NAME	
2 0 8	RESIDENCE & CITIZENSHIP	слу Charleston	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP USA	
	POST OFFICE ADDRESS	STREET 803K Runaway Bay Drive	спу Mt. Pleasant	STATEOR COUNTRY South Carolina	ZIP CODE 29464

(2)

PENNIE & EDMONDS LLP DOCKET NO. 9175-010

	FULL NAME OF INVENTOR	LAST NAME Huang	FIRST NAME Cancan	MIDDLE NAME	
0 9	RESIDENCE & CITIZENSHIP	CITY Charleston	STATE OR FOREIGN COUNTRY South Carolina	COUNTRY OF CITIZENSHIP China	
	POST OFFICE ADDRESS	STREET 1515 Ashley River Road, F49	спу Charleston	STATE OR COUNTRY South Carolina	zip code 29407

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

GNATURE OF INVENTOR 201	SIGNATURE OF INVENTOR 202	SIGNATURE OF INVENTOR 203
Laure C. Marria	Haly A Clean	Caroline Westwater
James S. Norris	DATE Clawson	DATE CATOLINE WESTWARE
TE.	January 3, 2000	
GNATURE OF INVENTOR 204	SIGNATURE OF INVENTOR 205	SIGNATURE OF INVENTOR 206
Michael G. Schmidt		with
Michael G. Schmidt	Brian Hoel	Wei-Hua Pan
DATE	DATE	DATE
)A[E		January 3, 2000
RENATURE OF INVENTOR 207	SIGNATURE OF INVENTOR 208	SIGNATURE OF INVENTOR 209
Joseph W. Dolan		
Joseph W. Dolan	David Schofield	Cancan Huang
ATE	DATE	DATE
1 2 3 3		
name		
70 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
1110E. 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		

(3) NY2 - 972888.1

ASSIGNMENT

WHEREAS, WE, GARY A. CLAWSON and WEI-HUA PAN, ASSIGNORS, citizens of the United States and China, respectively, residing at 5709 Rockmere Drive, Bethesda, Maryland 20816; and 907 Butler Court, Hummelstown, Pennsylvania 17036, respectively, are co-inventors with, JAMES S. NORRIS, MICHAEL G. SCHMIDT, BRIAN HOEL, JOSEPH W. DOLAN, DAVID SCHOFIELD, CAROLINE WESTWATER, and CANCAN HUANG, citizens of the United States, the United States, the United States, the United Kingdom, the United Kingdom, and China, respectively, residing at 1010 Casseque Province, Mt. Pleasant, South Carolina 29464; 1257 Wynnwood Court, Mt. Pleasant, South Carolina 29464; 803K Runaway Bay Drive, Mt. Pleasant, South Carolina 29464; 803K Runaway Bay Drive, Mt. Pleasant, South Carolina 29464; and 1515 Ashley River Road, F49, Charleston, South Carolina 29407, respectively, of the invention in TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES for which we have executed an application for a Patent of the United States of the United States

- which is identified by Pennie & Edmonds LLP docket no. 9175-010
- which was filed on June 24, 1999, as Application No. 09/338,942

and WHEREAS, The Penn State Research Foundation, a corporation existing under the laws of Pennsylvania, having a business address at 304 Old Main Street, University Park, Pennsylvania 16802, ASSIGNEE is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me in hand paid, and other good and aluable consideration, the receipt of which is hereby acknowledged, I, the said ASSIGNOR, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without in which any such application is filed, as may be applicable; and all forms of industrial property protection in any country in which any such applicables inventors' certificates and designs which may be granted for said invention in any country. limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that I have full right to convey our entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that I will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

 IN TES _, 1999 x	TIMONY 2000.	WHFREOF,	We hereunto s	et our hands	and seals	this <u>31</u>	d day of	_January	
						A. CLA		-	L.S

State of Pennsylvania

SS.:

County of Dauphin

On this 3 rdday of January, Box before me, a Notary Public in and for the State and County aforesaid, personally appeared GARY A. CLAWSON, personally known to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

> Susiè M Lyffred Notary Public.

> > NOTARIAL SEAL SUSIE M. GIFFORD, Notary Public Hershey, Dauphin County
> > My Commission Expires May 12, 2003

- ANY	k	L.S
W	EI-HUA PAN	

State of Pennsylvania

County of Dauphin

) SS.:

On this 3.7d day of January , 1992 before me, a Notary Public in and for the State and County aforesaid, personally appeared WEI-HUA PAN, personally known to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

Susie M. Suffeed Notary Public.

NOTARIAL SEAL SUSIE M. GIFFORD, Notary Public Hershey, Dauphin County My Commission Expires May 12, 2003

H. January Con

ASSIGNMENT

WHEREAS, WE, JAMES S. NORRIS,, MICHAEL G. SCHMIDT, BRIAN HOEL, JOSEPH W. DOLAN, DAVID SCHOFIELD, CAROLINE WESTWATER, and CANCAN HUANG, ASSIGNORS, citizens of the United States, the United States, the United Kingdom, the United Kingdom, and China, respectively, residing at 1010 Casseque Province, Mt. Pleasant, South Carolina 29464; 1257 Wynnwood Court, Mt. Pleasant, South Carolina 29464; 36 S. Battery, Charleston, South Carolina 29401; 1821 Falling Circle, Mt. Pleasant, South Carolina 29464;803K Runaway Bay Drive, Mt. Pleasant, South Carolina 29464; and 1515 Ashley River Road, F49, Charleston, South Carolina 29407, respectively, are co-inventors with GARY A. CLAWSON and WEI-HUA PAN, citizens of the United States and China, respectively, residing at 5709 Rockmere Drive, Bethesda, Maryland 20816; and 907 Butler Court, Hummelstown, Pennsylvania 17036, respectively, of the invention in TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES for which we have executed an application for a Patent of the United States

- which is identified by Pennie & Edmonds LLP docket no. 9175-010
- which was filed on June 24, 1999, as Application No. 09/338,942

and WHEREAS, Medical University of South Carolina, an agency of the State of South Carolina, having a business address at 171 Ashley Avenue, Charleston, South Carolina 29425, ASSIGNEE is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey our entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date 1/14/2000, 1999

JAMES S. NORRIS

State of SC

County of Charleston

SS.:

On this 14 day of Jacky, 1999 before me, a Notary Public in and for the State and County aforesaid, personally appeared JAMES S. NORRIS, personally known to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

Notary Public.

	2000	11. 16.1
	Date 14 January, 1999	Mich/ Selle L.S.
	3	MICHAEL G. SCHMIDT
	State of 3 (
	\ CC.	
	County of Charleston	
	·	
	On this 14 day of 5 Aug	before me, a Notary Public in and for the State and County aforesaid,
	personally appeared MICHAEL G. SCHMI	DT, personally known to me on the basis of satisfactory evidence to be the person
	whose name is subscribed to the within in	strument and acknowledged to me that he executed the same in his authorized
		strument the person, or the entity upon behalf of which the person acted, executed
	the instrument.	A + A + A + A + A + A + A + A + A + A +
		me: das 10, 2000 Novary Public.
		and tolerance
	Date 14 Jan , 1999	I.S.
	Date 11 Jan , 1999	BRIAN HOEL
		DIGAN HOLL
Ź	State of SC)	
1	· 22 (
3	County of Charlectun }	
-	1 0 4: 14 1 The	3 and 000 d. Commun. Note on Dublin in and County County of County
ŧ	On this 'd day of January of PPIAN HOEL negron	before me, a Notary Public in and for the State and County aforesaid, ally known to me on the basis of satisfactory evidence to be the person whose name
=	personally appeared BRIAN HOEL, personally is subscribed to the within instrument and a	cknowledged to me that he executed the same in his authorized capacity, and that
=	by his signature on the instrument the person	on, or the entity upon behalf of which the person acted, executed the instrument.
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		nce! and 10, 1000 Novary Public.
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	700	O = O = O = O = O = O = O = O = O = O =
	Date 14 Jan . 1999	L.S.
:		JOSEPH W. DOLAN
	State of Sc.	
	County of Charlesten) SS.:	
	County of 20 424 ()	
	On this 14 day of JAun	2004999 before me, a Notary Public in and for the State and County aforesaid.
	personally appeared JOSEPH W. DOLAN	204999 before me, a Notary Public in and for the State and County aforesaid, personally known to me on the basis of satisfactory evidence to be the person
	whose name is subscribed to the within in	strument and acknowledged to me that he executed the same in his authorized
		strument the person, or the entity upon behalf of which the person acted, executed
	the instrument.	$l \cdot \circ \wedge \circ l \circ \circ l$
		M/G(Yer)/2
		me: Spul 10, 2400 Notary Public.
	2000	
	Date 14 January, 1999	D.A. Scholuld L.S.
	Date	DAVID SCHOFIELD
	State of $\mathcal{S}^{\mathcal{L}}$	
	County of Charleston SS.:	
	County of Charleston)	
	On this 14 day of Tam	2005 before me a Notary Public in and for the State and County aforesaid
	personally appeared DAVID SCHOFIEVE	24925 before me, a Notary Public in and for the State and County aforesaid, personally known to me on the basis of satisfactory evidence to be the person
	whose name is subscribed to the within in	strument and acknowledged to me that he executed the same in his authorized
	capacity, and that by his signature on the in	strument the person, or the entity upon behalf of which the person acied, executed
	the instrument.	\sim
		11 X JOHNEN X
		Manage Bullia
		Me: April 10 2000 Notary Public.

Date 14 Janary	, 2000 , 19 99 	Caroline Worki	ROLINE WESTWATER	L.S.
State of SC) SS.:			
personally appeared CA person whose name is s	lay of Jana, F ROLINE WESTWATER subscribed to the within that by her signature on the	before me, a Notary P , personally known to me instrument and acknowled e instrument the person, or	on the basis of satisfacto dged to me that she exec	ory evidence to be the uted the same in her
		New Trees	2: April 10, more	Notary Public
Date	2022 	CAT	NCAN HUANG	L.S.
State of 5 C County of Charlest	} ss.:			
On this 14 of personally appeared CAI name is subscribed to the	day of And , f NCAN HUANCOpersonal within instrument and ac	before me, a Notary P lly known to me on the basi knowledged to me that he e or the entity upon behalf of	s of satisfactory evidence texecuted the same in his au	to be the person whose thorized capacity, and ecuted the instrument.
Sure of the sure o		m	ce: April 10, 2000	Nota: y Public.